Revamp governance of Canadian Task Force on Preventive Health Care

The efficacy of earlier detection of breast cancer by routine screening with mammography was clearly shown in several randomized controlled trials (RCTs) conducted in the 1970s to 1990s.[1] The benefit is understood to come from the ability to treat smaller and earlier-stage screen-detected cancers, the keywords being "earlier" and "treatment." This is logical; no oncologist, given the choice, would opt to treat more advanced disease.

Randomized controlled trials are held up as the gold standard for quality of evidence. But this is true only if the intervention tested in the RCT is consistent with the current question of interest — that is, what is the effectiveness of today's breast cancer screening in women aged 40–74? Although the RCTs on breast screening have provided proof-of-principle of benefit, the screening techniques available at the end of the last millennium were primitive compared with what is used in screening programs today. Since that time, there have been substantial improvements in both screening and therapy. In particular, the detectability of small invasive cancers has improved markedly.

Data from many organized screening programs have shown that women aged 40 and older who avail themselves of screening mammography are from 30% to 45% less likely to die of breast cancer than those who are not screened, 2 to 3 times the mortality reduction seen in the RCTs.[2,3] Much of the increased benefit remained, even after conservative corrections were applied for self-selection bias, a limitation of such observational studies. Recent research has shown that earlier detection also decreases morbidity associated with breast cancer therapy, often reducing the need for mastectomy, axillary dissection and chemotherapy.[4]

To my knowledge, there are no RCTs attempting to evaluate the effect of modern screening combined with modern therapy. And there are unlikely to be any in the future because most scientists in the field are convinced that the question is already answered and that the cost and time delay in conducting another trial with modern screening are not justified. Given the results from RCTs as a baseline, they accept the data from service screening programs that are consistent with a greater level of benefit than shown by the RCTs. Furthermore, it is unlikely that women would now be willing to be randomly assigned to a study arm that did not include screening.

Nevertheless, in 2011[5] and again in its 2018 recommendations,[6] the Canadian Task Force on Preventive Health Care has chosen to ignore any data on benefit except that from the older RCTs. The task force refuses to consider modern data (some of it coming from recent Canadian studies), placing much emphasis on harms, without making the effort to put those into context with the benefits of reduced mortality and morbidity — a standard approach used in health services research.

The task force's justification against screening women in their 40s is based on lower cancer risk in this group. Yet 24% of life-years lost and 14% of deaths caused by breast cancer[7] come from cancers arising over that age range.

Even the title of the recommendations is misleading, limiting the recommendations to "… women not at increased risk …". The greatest increase in breast cancer risk is in being a woman over 40. The next greatest attributable risk is having very dense breasts, a double-barrelled risk, because it is also more difficult to detect cancer in the dense breast with mammography — ultrasonography is more accurate.[8,9] But despite a vast literature, density and ultrasonography are dismissed by the task force.

The recommendations by the task force refer to an approach of "shared decision-making between a woman and her health care provider" on whether and when to be screened. A great idea. But has it not always been a patient's right to accept or reject medical advice? It would have been more helpful if the task force had provided accurate information to the physician to guide that advice.

Why does the task force continue to make recommendations that are at odds with the science? The full reason is not clear to me, but the dogma that the only acceptable form of evidence is an RCT, even if that RCT does not really speak to the question — is ludicrous. Physicians and the public should reject these recommendations. Given the limited and cherry-picked consideration of modern data by the Canadian Task Force on Preventive Health Care, physicians cannot rely on its guidelines and have no other choice but to turn directly to the research literature. Health Canada should review and revamp the governance of the task force.

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